

WD RE4

Enterprise Hard Drives

High Performance
24x7 Reliability
1.2 Million Hours MTBF



Interface

SATA

Width/Height

3.5-inch/1-inch

Rotational Speed

7200 RPM

Capacities

2 TB

Model Numbers

WD2003FYYS

Note: Not all products may be available in all regions of the world.

WD RE4 enterprise SATA hard drives combine 64 MB cache with a SATA 3 Gb/s transfer rate and dual stage actuation for lightning-fast performance in demanding server and storage applications. Technologically advanced acoustics minimize noise. Cool drive operation and enhanced reliability features help protect the drive and the data stored on it.

Product Benefits

Massive capacity - WD RE4 Enterprise SATA drives are available with a cavernous 2 TB capacity.

Dual actuator technology - A head positioning system with two actuators that improves positional accuracy over the data track(s). The primary actuator provides coarse displacement using conventional electromagnetic actuator principles. The secondary actuator uses piezoelectric motion to fine tune the head positioning to a higher degree of accuracy.

Dual processor - With double the processing power, WD RE4 boasts the highest performance of any drive in the WD RE family.

StableTrac™ - The motor shaft is secured at both ends to reduce system-induced vibration and stabilize platters for accurate tracking during read and write operations.

RAFF™ - Enhanced RAFF technology includes sophisticated electronics to monitor the drive and correct both linear and rotational vibration in real time. The result is a significant performance improvement in high vibration environments over the previous generation of drives.

IntelliSeek™ - Calculates optimum seek speeds to lower power consumption, noise, and vibration in active seek modes without degrading performance.

StableTrac™ - The motor shaft is secured at both ends to reduce system-induced vibration and stabilize platters for accurate tracking during read and write operations.

Multi-axis shock sensor - Automatically detects the subtlest shock events and compensates to protect the data.

RAID-specific, time-limited error recovery (TLER) - Prevents drive fallout caused by the extended hard drive error-recovery processes common to desktop drives.

Third generation dynamic fly height - Each read-write head's fly height is adjusted in real time for optimum reliability.

Thermal extended burn-in test - Each drive is put through extended burn-in testing with thermal cycling to ensure reliable operation.

NoTouch™ ramp load technology - The recording head never touches the disk media ensuring significantly less wear to the recording head and media as well as better drive protection in transit.

Perpendicular Magnetic Recording (PMR) - WD RE4 drives utilize PMR technology to achieve even greater areal density, reliability, and design margin.

Active Power Save™ - Delivers best-in-class power consumption through advanced WD firmware that conserves power in active seek modes without degrading performance.

5-year limited warranty

Applications

Ideal for servers, storage arrays, video surveillance, and other demanding applications.



PUT YOUR LIFE ON IT®

WD RE4

Enterprise Hard Drives

Specifications ¹	2 TB
Model number	WD2003FYYS
Interface	SATA 3 Gb/s
Formatted capacity	2,000,398 MB
User sectors per drive	3,907,029,168
LBA support	Yes
SATA latching connector	Yes
Actuator latch/auto park	Yes
Form factor	3.5-inch
RoHS compliant ²	Yes
Performance	
Data transfer rate (max)	
Buffer to host	3 Gb/s
Host to/from drive (sustained)	138 MB/s
Cache (MB)	64
Average latency (ms)	4.2
Rotational speed (RPM)	7200
Average drive ready time (sec)	21
Configuration/Organization	
Heads/disks	8/4
Bytes per sector (STD)	512
Reliability/Data Integrity	
Load/unload cycles ³	600,000
Non-recoverable read errors per bits read	<1 in 10 ¹⁵
Limited warranty (years) ⁴	5
Power Management	
Average power requirements (W)	
Read/Write	10.7
Idle	8.2
Standby	1.3
Sleep	1.3
Environmental Specifications⁵	
Temperature (°C)	
Operating	5 to 55
Non-operating	-40 to 70
Shock (Gs)	
Operating (2 ms, read)	30
Operating (2 ms, read/write)	65
Non-operating (2 ms)	300
Average acoustics (dBA) ⁶	
Idle mode	29
Performance seek mode	34
Quiet seek mode	30
Physical Dimensions	
Height (in./mm, max)	1.028/25.4
Length (in./mm, max)	5.787/147
Width (in./mm, ± .01 in.)	4/101.6
Weight (lb./kg, ± 10%)	1.66/0.75

¹ As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 3 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details.

² WD products manufactured and sold worldwide after August 1, 2005, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the European Union for electrical and electronic products. The RoHS Directive 2002/95/EC of the European Parliament, which is effective in the EU beginning July 1, 2006, aims to protect human health and the environment by restricting the use of certain hazardous substances in new equipment, and consists of restrictions on lead, mercury, cadmium, and other substances.

³ Controlled under ambient condition.

⁴ The term of the limited warranty may vary by region. Visit support.wdc.com/warranty for details.

⁵ No non-recoverable errors during operating tests or after non-operating tests.

⁶ Sound power level.



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